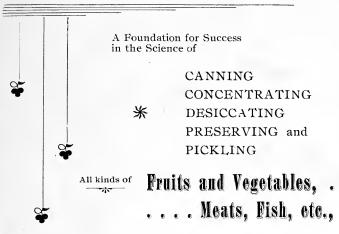
Fruit Growers' Manual Canning Fruit, Etc., Etc.







# Fruit Growers' Manual



Embracing every detail of the business, from the greatest to the smallest, in a condensed form.

How to organize a cannery, how to buy supplies, how to organize labor, how to market the product; general review of the canning business; laws of canning in the State of California.

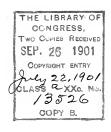
In fact, a complete guide for manufacturing all kinds of canned goods, jams, jellies, marmalades, fruit butters, etc.





HEMLOW-MERIAM CO.,

Editors and Proprietors



Entered according to Act of Congress in the year 1901, by HEMLOW—MERIAM CO.,

In the office of the Librarian of Congress at Washington.

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# Introductory

UR LONG EXPERIENCE in connection with the canning industry in the banner State of the Union, enables us to furnish designs, specifications and estimates as to cost.

Our only ambition is to furnish the data to the fruit growers enabling them to build canneries and to can commercial and domestic canned products. We are the only people in the world who furnish the data, as it is well known that all the facts heretofore put on the market are to a very great extent taken from the domestic household.

We solicit correspondence from all parts, from those contemplating building new factories, or rebuilding.

HEMLOW-MERIAM CO.



### To the Fruit Grower

WING TO URGENT REQUESTS from different parts of this and other States asking us to adopt or outline some plan whereby the individual producer can market his own fruit and vegetables, and as a result of these inquiries, after a long experience in the business, we submit the following. We have conducted large and expensive experiments that we might arrive at the best practical results; the result of these experiments we herewith submit for your earnest and careful consideration.

We are the only people in the world, who furnish data complete to build canneries, put them in operation and guarantee results, and are in no way associated with any other person, firm or corporation. We recommend building factories in six (6) different sizes and styles, with a capacity varying in size from 500 to 10,000 cans per day, and in prices from \$100 to \$2,000, including instructions how to operate them.

The requisites for operating a cannery are namely:

First-An abundant supply of fruit.

Second—An abundant supply of water.

Third-Fairly good railroad facilities.

Fourth-A supply of good help.

There are four grades of fruit known on the commercial market, namely:

Extras, Extra Standards, Standards, Seconds. These are canned with syrup made from cane sugar, and are canned in four different size cans; these cans are known as stud top or soldered top and are denoted by their openings.

Extras, three inch openings.

Extra Standards, two and one-half inch openings.

Standards, two inch openings.

Seconds, one and three-fourths inch openings.



# Estimates on Plants

E STRONGLY ADVISE all parties going into the cannery business to write us and secure our special catalogue and estimates as to how to build canneries, and in the start to secure, if possible, a man of experience to build and operate the cannery. We hold ourselves in readiness to furnish such men for a reasonable compensation for such work. We strongly advise putting up canneries of older pattern, as it is a well known fact that the greater per cent of the so-called improved machinery necessitates putting up a cheap class of product; when there is hand-work on high-class goods it costs more to put them up, but the results are more satisfactory from a commercial and financial standpoint.

We give these estimates after careful observation of the cannery business of this and other States for the past fifteen years.

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#### ESTIMATE OF PLANT NO. ONE.

This plant is intended for the individual farm or ranch, and can be erected for \$100; capacity from 500 to 1000 cans per day:

One (No. 16 iron) galvanized iron tank, 4 feet long, 2 feet wide and 2 feet deep, set in brickwork.

One exhaust tank of same pattern.

One copper kettle, 10 gallons, for syrup making, also set in brick.

One exhaust crate.

One process crate.

Three sets of grate bars.

One hoisting gear or traveling hoist.

One gasoline fire pot.

Four capping steels or coppers. (We recommend the "Brace and Bit" pattern.)

Four tipping coppers.

Four capping trays, 14 inches long, 14 inches wide and 2 inches deep.

Four peeling tables, 8 feet long, 2 feet wide.

One syrup device. This can be a clean barrel with hose connection with cock.

Two dozen peeling knives.

One thermometer.

One saccharometer.

Two rotary knife, hand-paring machines.

For any information pertaining to fittings write us.

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#### ESTIMATE PLANT NO. TWO.

Capacity-1000 to 3,000 per day. Cost-\$460.

Three galvanized iron tanks 4 feet long, 2½ feet wide, 2½ feet deep. Set in brick furnace. With grate bars.

One copper kettle set in brick. Capacity, 20 gallons.

Two exhaust crates.

Two process crates.

Six capping steels or coppers, brace and bit pattern.

Six tipping irons or coppers.

Six capping trays 14 inches long, 14 inches wide, 2 inches deep.

Six peeling tables 8 feet long, 2 feet wide.

Two packing tables 8 feet long, 2 feet wide.

Two capping tables 8 feet long, 2 feet wide.

Two gasoline fire pots.

Two syrup barrels, with rubber hose connection and cock.

One thermometer.

One saccharometer.

Three dozen peeling knives.

One traveling hoist gear.

Four rotary knife hand-paring machines.

If any information pertaining to fitting is wanted, write us for particulars.

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#### ESTIMATE PLANT NO. THREE.

Capacity 3000 to 5000 cans per day.

We would recommend putting in an 8 H. P. steam boiler, which will cost \$135—the whole plant complete costing \$800.

Four wooden tanks, 3 feet long, 3 feet wide, 2 feet deep.

Two syrup tanks, capacity 20 gallons each, with steam connections, on raised platform 8 feet high, with connections to receive syrup with hose and cock.

One steam jacket kettle, capacity 20 gallons, for making jellies and jams.

Four exhaust crates.

Four process crates.

One set crane fixtures for traveling hoist.

Three gasoline fire pots.

Two floor trucks.

Eight peeling tables-10 feet long, 3 feet wide.

Three packing tables—10 feet long, 3 feet wide.

Two capping tables—10 feet long, 2 feet wide.

Ten capping trays—14 inches by 14 inches by 2 inches.

Eight capping steels or coppers—brace and bit pattern.

Eight tipping irons or coppers.

One thermometer.

One saccharometer.

One vise.

One anvil.

Six peeling machines, hand use.

Four dozen peeling knives.

See explanation on peeling knives and machines elsewhere in this book.

For any information pertaining to fittings, write us.

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#### ESTIMATE PLANT NO. FOUR.

Capacity-5,000 to 7,000 cans per day.

One 12 H. P. boiler, with all trimmings.

One one ton platform scales.

One water supply tank and pump.

Three wire scalding baskets.

Five wooden tanks, 3 feet long, 3 feet wide, 2 feet deep, with proper pipe connections.

One scalding tank.

Four syrup tanks with proper pipe connections.

One syrup machine, to syrup 1 dozen cans at once.

Five peeling tables, 15 feet long, 2½ feet wide.

One capping table, 15 feet long, 2 feet wide.

Two gasoline fire pots or blast furnaces.

One forging stake.

Four pairs capping coppers of the brace and bit pattern.

Eight tipping irons.

Six pairs can tongs.

One pipe wrench.

One anvil.

One vise.

Twelve capping trays 14 inches long, 14 inches wide, 2 inches deep.

Three dozen knives.

Eight peeling machines, hand use.

For any information pertaining to fittings, write us.

The approximate cost of the above plant would be \$1,000.

#### ESTIMATE PLANT NO. FIVE.

Capacity 7,000 to 8,000 cans per day.

Approximate cost \$1,275.

One 18 H. P. boiler with all the necessary trimmings.

Four wooden tanks—40 inches long, 36 inches wide, 24 inches deep.

Two cold water tanks—3 feet long, 3 feet wide, 2 feet deep with cold water connections.

One water supply tank and pump; capacity 1,000 gallons.

One two-ton platform scales.

One scalding tank. See scalding advertisements.

One retort, 1000 cans capacity, and steam guage and thermometer.

One foot-power tomato can filler.

One four-burner coal oil plant or gasoline outfit, complete with four burners.

One San Jose capping machine.

Two pairs of brace and bit capping coppers.

Fifteen exhaust and cooking trays.

Two floor trucks.

One combination vise, one saccharometer.

One machine hammer.

One forging stake.

Eight peeling tables—15 feet long,  $2\frac{1}{2}$  feet wide.

One capping table—16 feet long, 2 feet wide.

One gasoline fire pot for mending leaks.

Four syrup tanks.

Two syrup machines for one dozen cans each.

One anvil.

One 40 gallon jacket kettle.

For any information pertaining to fittings, write us.

#### ESTIMATE PLANT NO. SIX.

Capacity—8,000 to 10,000 cans per day. Approximate cost—\$2,000.

One 30 H. P. boiler with 8 H. P. engine with all the necessary trimmings.

Eight cooking tanks, 40 inches long, 36 inches wide, 24 inches deep.

Two cold water tanks, 3 feet long, 3 feet wide, 2 feet deep, with cold water connections.

One water supply tank with pump connections; capacity, 1,500 gallons.

One two ton platform scales.

One retort; capacity 1,000 gallons, steam guage and thermometer.

One power tomato can filler.

One 6 burner coal oil plant or gasoline outfit complete with 6 burners.

Two San Jose capping machines.

Three pairs brace and bit capping coppers.

Sixteen exhaust and cooking trays with traveling hoist.

Four floor trucks.

One combination vise.

One machine hammer.

One forging stake.

One anvil.

One saccharometer.

Four syrup tanks, 20 gallon capacity each.

One mixing tank for syrup.

Three syruping machines for one dozen cans each.

Three sets of can tongs.

One gross peeling knives.

Three dozen peeling machines.

One peach and apricot slicer.

See reference page, Where and How to Buy Machinery.

In giving estimates on buildings we recommend building wood or corrugated iron, and one story high.

Plant No. 1.—Warerooms to face railroad, receiving shed on back. Receiving shed to be the entire length of building and 12 feet wide. The building to be 20 feet by 25 feet, and wareshed next to railroad 25 feet by 12 feet.

Plant No. 2.—This building to be 30 feet long, 25 feet wide, with receiving shed to be 30 feet long and 12 feet wide.

Plant No. 3.—This building to be 35 feet long by 30 feet wide; receiving shed to be 35 feet long by 12 feet wide.

Plant No. 4.—This building to be 43 feet long by 38 feet wide; receiving shed to be 43 feet long by 15 feet wide.

Plant No. 5.—This building to be 51 feet long by 46 feet wide; receiving shed to be 51 feet long by 15 feet wide.

Plant No. 6.—This building to be 61 feet long by 56 feet wide; receiving shed to be 61 feet long by 18 feet wide.

For miscellaneous fittings, send us diagrams and we will furnish the necessary data.



# Apples

#### EXTRA-Three pound cans.

This product is to be of sound and uniform size, and free from worms, and peeled by hand, this will apply to Extras and Extra Standards. After peeling, cut in halves, taking the core out with a coring knife, and for Extras will not measure less than three inches in diameter; fill the can conveniently full with the cup part downward, then fill the can to within one-eighth of an inch of the top with syrup containing not less than thirty-two (32) per cent of saccharine matter. Syrup made of cane sugar, then seal the can, leaving the small hole in the top; insert in boiling water five minutes, then take out and seal the hole and cook in boiling water twelve minutes. Take out and cool the cans in cold water.

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#### APPLES.

EXTRA STANDARDS—Two and one-half-pound cans.

This fruit is to measure not less than two and one-half inches in diameter; and fill the cans the same as Extras and syrup to contain not less than twenty-eight per cent saccharine matter; then seal the cans, leaving the small hole in the top, insert in boiling water five minutes, then take out and seal the hole in the top and then cook in boiling water twelve minutes.

Cool the cans in cold water.

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#### APPLES.

STANDARDS—Two and one-half-pound cans.

This fruit is to measure not less than two inches in diameter, and can be machine pared; fill in cans the same as Extras, and syrup to contain not less than twenty per cent saccharine matter. Then seal the cans, leaving the small hole in the top, insert in boiling water five minutes, then take out and seal the hole; cook in boiling water twelve minutes. Cool in cold water.

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#### APPLES.

SECONDS-Two and one-half-pound cans.

This fruit is of an inferior quality and we do not recommend its canning, but will give the following process: This fruit is to be machine pared and cut in quarters, and the can filled conveniently full with fruit; the syrup to contain not less than ten per cent saccharine matter. Then seal the cans, leaving the small hole in the top, insert in boiling water five minutes, then take out and seal the hole, and cook in boiling water twelve minutes. Cool in cold water.

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## **Apricots**

#### HEMSKIRK OR MOORPARKS.

EXTRAS-Three-pound cans.

This fruit is to be carefully selected, stoned, and washed clean. Fill the cans with not less than one and three-fourths pounds of fruit; fill the can to within one-fourth inch of the top with syrup containing not less than thirty-eight per cent saccharine matter, then seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out and seal the hole, and cook in boiling water sixteen minutes, or according to ripeness of fruit. Cool the cans in cold water.

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#### APRICOTS

EXTRAS-Two and one-half-pound cans.

This fruit is to be carefully selected and free from discoloration, stoned, washed and carefully packed in the cans with the cup part downward, the syrup to contain not less than thirty-eight per cent saccharine matter; seal the cans, leaving the small hole in the top; insert in boiling water five minutes, take out and seal the hole and cook in boiling water fifteen minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### APRICOTS.

EXTRA STANDARDS—Two and one-half-pound cans.

This fruit is to be carefully selected and free from rust and

washed thoroughly. Fill the cans conveniently full of fruit, then fill to within one-fourth of an inch of the top with syrup containing not less than twenty-eight per cent saccharine matter, then seal the cans leaving the small hole in the top; insert in boiling water five minutes, take out and seal the hole; cook in boiling water fifteen minutes, or according to the ripeness of the fruit. Cool the cans in cold water.

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#### APRICOTS.

STANDARDS—Two and one-half-pound cans.

This fruit is of a smaller grade, the can to contain not less than one and one-fourth pounds of fruit, and the syrup to contain not less than twenty per cent saccharine matter. Fill the cans to within one fourth of an inch of the top with syrup, seal the cans, leaving the small hole in the top; insert in boiling water five minutes, take out and seal the hole, then cook in boiling water fifteen minutes or according to the ripeness of fruit. Cool the cans in cold water.

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#### APRICOTS.

SECONDS-Two and one-half-pound cans.

This fruit is of a cheaper and inferior quality, and the syrup is to contain not less than sixteen per cent saccharine matter. Fill the cans to within one-fourth of an inch of the top with syrup, seal the can, leaving the small hole in the top; insert in boiling water five minutes, then take out, and seal the hole; cook in boiling water fifteen minutes or according to the ripeness of fruit. Cool the cans in cold water.

# For Canning in Gallon or Eight-pound Cans

In canning this product, known as gallon cans, the fruit whether it be apricots, peaches, pears or apples, intended to be used as a desert at hotels, restaurants, etc., is carefully selected, not measuring less than two inches in diameter and put up in gallon cans, sometimes called eight pound cans, and is designated as table fruit. We advise putting up this product as it meets with popular demand. We give the following process for putting up this fruit:

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#### APPLES.

#### TABLE FRUIT-GALLON.

This fruit is to be carefully selected, sound, and of uniform size; can be pared by machine, the can carefully filled, the syrup to contain not less than twenty per cent saccharine matter. Fill the can to within one-fourth inch of the top, then seal the can, leaving the small hole in the top, and insert in boiling water seven minutes; take out, and seal the hole, and then cook in boiling water twenty minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### APPLES.

#### PIE FRUIT-GALLON.

This fruit is not peeled and is cut in quarters, the can filled

conveniently full, and to within one-fourth inch of the top with cold water. Seal the can, leaving the small hole in the top, insert in boiling water seven minutes; take out, and seal the hole. Cook in boiling water fifteen minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### APRICOTS.

#### TABLE FRUIT-GALLON,

This fruit is to be carefully selected, sound, and uniform in size, the can carefully filled with the fruit. Fill the can to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water seven minutes, then take out, seal the hole, and cook in boiling water twenty minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### APRICOTS.

#### PIE FRUIT-GALLON.

This fruit is not peeled and is cut in halves, the can filled conveniently full, and filled to within one-fourth inch of the top with cold water. Seal the can, leaving the small hole in the top, insert in boiling water seven minutes, then take out, seal the hole, and cook in boiling water twenty minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### PEACHES.

#### TABLE FRUIT-GALLON.

This fruit is to be of equal ripeness and hand pared and each

peach to measure not less than two inches in diameter; the can filled conveniently full; fill the can to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter, then seal the can, leaving the small hole in the top; insert in boiling water seven minutes. Take out, seal the hole, and cook in boiling water twenty-five minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### PEACHES.

#### PIE FRUIT-GALLON.

This fruit is to be firm, free from spot, and peeled with machine, and each can contain not less than forty halves and not more than sixty halves, the syrup to contain not less than eighteen or twenty per cent saccharine matter. Fill the can to within one-fourth of an inch of the top with syrup, then seal the can, leaving the small hole in the top; insert in boiling water seven minutes, take out, seal the hole, and cook in boiling water twenty-five minutes, or according to ripeness of fruit. Cool the cans in cold water.

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#### TABLE FRUIT-GALLON.

This fruit is to be of uniform size, measuring not less than two inches in diameter. Fill the cans conveniently full, the syrup to contain not less than thirty-two per cent saccharine matter and filled to within one-fourth of an inch of the top. Seal the can, leaving the small hole in the top; insert in boiling water seven minutes, take out, seal the hole, and cook in boiling water twenty-five minutes or according to ripeness of fruit. Cool the cans in cold water.

#### BARTLETT PEARS.

#### PIE FRUIT-GALLON.

This fruit is to be washed and not pared, and cans to contain at least fifty halves and filled to within one-fourth of an inch of the top with cold water. Seal the can, leaving the small hole in the top; insert in boiling water seven minutes, take out, seal the hole and cook in boiling water twenty-five minutes or according to ripeness of fruit. Cool the cans in cold water.



# Peaches

#### YELLOW CRAWFORD.

EXTRAS—Three pound cans—Three inch opening.

This fruit is to be carefully selected, hand-pared, measuring not less than three inches in diameter and should average from seven to eight halves to the can, the syrup to contain not less than forty-two per cent saccharine matter, and be canned with the following process: The can being carefully filled with the fruit, the cup part downward in the can, the syrup to be filled within one-fourth of an inch from the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water fifteen minutes or according to ripeness of fruit. In order to retain the color and stop the cooking of the fruit, insert the cans in cold water four or five minutes.

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#### YELLOW CRAWFORD

#### EXTRA STANDARD.

This fruit is to be of equal ripeness and hand pared, the average peach to measure not less than two and one-half inches in diameter, and each can to contain not less than ten halves nor more than twelve halves. The syrup is to contain not less than thirty-two per cent saccharine matter, and we herewith give the following process: The can is to be carefully filled with fruit, the cup part downward in the can, and the syrup to be filled to within one fourth of an inch of the top. Seal the can, leaving the small hole in the top; insert in boiling water five minutes.

take out, seal the hole, and cook in boiling water fifteen minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### YELLOW CRAWFORDS.

#### STANDARD.

This grade is to be ripe and free from dust and rust spots, and we advise, as it is a cheaper grade that it be peeled by a machine; we recommend the Scott machine. This fruit is to be filled in the cans which should contain not less than sixteen halves, the fruit to measure not less than two inches in diameter, the syrup to contain not less than twenty-two per cent saccharine matter. Fill the can to within one-fourth of an inch of the top, then seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water fifteen minutes or according to ripeness of fruit. Cool cans in cold water.

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#### YELLOW CRAWFORD.

#### SECONDS.

This grade of fruit is commercially known as Seconds. We do not advise putting up this product, as the fruit is of an inferior quality and the cans, labels and sugar cost almost the same as for the higher grades and it is more difficult to market this product where it will not sell on its own merits. We give the following process for canning the same:

Peel the peaches by machine, fill the cans with not less than eighteen or twenty halves, and syrup to contain not less than twelve per cent saccharine matter. Fill the cans to within one-fourth inch of the top with the syrup, then seal the can, leaving the small hole in the top; insert in boiling water five minutes;

take out, seal the hole, and cook in boiling water fifteen minutes or according to the ripeness of fruit. Cool the cans in cold water.

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#### LEMON CLING.

EXTRAS-Three-pound cans; Three-inch openings.

This fruit is to be carefully selected and hand peeled, measuring not less than three inches in diameter and average from seven to eight halves to the can; the syrup is to contain, on an average, forty-eight per cent saccharine matter and we give the following process:

The can is to be filled with the fruit, the cup part downward in the can, and the syrup to be filled within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and then cook in boiling water seventeen minutes or according to ripeness of fruit. Cool cans in cold water.

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#### LEMON CLING.

EXTRA STANDARDS-21/2-pound cans-21/2-inch opening.

This fruit is to be of equal ripeness, hand-peeled, the average peach to measure not less than two and one-half inches in diameter, and each can to contain not less than ten nor more than twelve halves; the syrup to contain not less than thirty-eight per cent saccharine matter; we herewith give the following process: The can is to be carefully filled with fruit, the cup part downward in the can, and filled with syrup to within one-fourth of an inch of the top; seal the can leaving the small hole in the top, insert in boiling water five minutes, take out, and seal the hole, and cook in boiling water seventeen minutes or according to ripeness of fruit. Cool in cold water.

#### LEMON CLING.

Two and One-half pound cans-Two-inch opening.

This fruit is to be ripe and free from dust and rust spots, and we advise, as this is a cheaper product, that it be peeled with machines. We recommend the Scott machine. This fruit is to be filled in the cans, which should contain not less than sixteen halves, and should measure not less than two inches in diameter; the syrup to contain not less than twenty-eight per cent saccharine matter. Fill the cans to within one-fourth of an inch of the top, then seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water seventeen minutes or according to ripeness of fruit. Cool in cold water.

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#### LEMON CLING.

SECONDS-21/2-pound cans-13/4 inch opening.

This grade of fruit is commercially known as Seconds. We do not advise putting up this product; the fruit is of an inferior quality, and the cans, labels, and sugar cost almost the same as for the higher grades, and it is more difficult to market this product where it will not sell on its own merits. We give the following process for canning the same: Peel the peaches by machine, fill the cans with not less than eighteen to twenty halves, and syrup to contain not less than eighteen per cent saccharine matter. Fill the cans to within one-fourth inch of the top with syrup, then seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water seventeen minutes or according to ripeness of fruit. Take out and cool the cans in cold water.

# Bartlett Pears

EXTRAS—Three-pound cans; three-inch openings.

(This product is canned in five different grades.)

This fruit is to be carefully selected and is not ready to can until in full ripeness; measuring not less than three inches in diameter, and hand pared. Each three-pound can is to contain not less than eight halves, the can to be filled with the cup part downward; fill with syrup to within one-fourth inch of the top, the syrup containing not less than forty-eight per cent saccharine matter. Seal the can, leaving the small hole in the top, insert in boiling water five minutes; take out, seal the hole, and cook in boiling water eighteen minutes or according to ripeness of fruit. Take out and cool the cans in cold water—this is to retain the color.

#### BARTLETT PEARS.

EXTRAS—2½-pound cans; 2½-inch openings.

This fruit is to be equal to Extras in three-pound cans, filled as above, the syrup to contain forty-eight per cent saccharine matter, and cooked as above.

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#### BARTLETT PEARS.

EXTRA STANDARDS— $2\frac{1}{2}$  pound cans;  $2\frac{1}{2}$  inch openings.

This fruit is to be carefully selected, to measure not less than two and one-half inches in diameter and be hand pared. Fill the cans conveniently full with fruit; fill to within one-fourth inch of the top with syrup containing not less than thirty-eight per cent saccharine matter; seal the cans, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water eighteen minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### BARTLETT PEARS

STANDARDS-Two and one-half-pound cans; two inch openings.

This fruit as well as Seconds can be peeled by machine. The fruit is to measure not less than two inches in diameter; fill the can conveniently full, then fill to within one-fourth inch of the top with syrup containing not less than twenty-eight per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and then cook in boiling water eighteen minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### BARTLETT PEARS.

Seconds— $2\frac{1}{2}$  pound cans;  $1\frac{3}{4}$  inch openings.

This fruit is to measure not less than one and three-fourths inches in diameter; the syrup to contain not less than eighteen per cent saccharine matter, and fill the can to within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water eighteen minutes or according to ripeness of fruit. Cool cans in cold water.



# Specialties

#### APRICOTS SLICED.

Though making this product a specialty, we do not recommend canning it to any very large extent, as it is quite difficult to place on the market, but commands a high price. They are canned in three different grades, namely: Extras, Extra Standards and Standards. We give the following process:

The fruit is of the same quality as above mentioned, and is sliced with a vegetable cutter, the slices being one-fourth inch in thickness and as nearly perfect as possible. The cans are to be filled within one-half inch of the top, and with the respective grades of syrup fill the cans to within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripneess of fruit. Cool the cans in cold water.

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#### PEACHES SLICED.

This fruit may be canned in the same manner as above with entire success.



# Plums

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#### GREEN GAGE.

#### TABLE FRUIT-GALLON.

Pick the fruit ripe, wash, fill the cans conveniently full, then fill with syrup containing not less than thirty-two per cent saccharine matter to one-fourth inch of the top; seal the cans, leaving the small hole in the top; insert in boiling water seven minutes; take out, seal the hole, and cook in boiling water twenty minutes or according to ripeness of fruit. Cool in cold water.

The same method of putting up any kind of plums for table fruit may be employed, taking exceptional care that the cans are well filled with fruit and syrup. If the cans are loosely filled the sides of the cans will concave, thereby deforming them. Use the same syrup in this fruit as would be used in Extra Standards or in any of the other grades of the plums.

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#### GREEN GAGE.

EXTRAS—All plums to be canned whole; three-pound cans; three-inch openings.

Pick the fruit ripe. Wash the fruit, fill the cans conveniently full, fill with syrup containing not less than forty-two per cent saccharine matter to within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to the ripeness of the fruit. Coo the cans in cold water.

#### GREEN GAGE.

EXTRA STANDARDS-21/2-pound cans; 21/2-inch openings.

Pick the fruit ripe. Wash the fruit, fill the cans conveniently full, then fill with syrup containing not less than thirty-two per cent saccharine matter, to within one-fourth inch of the top; seal the can, leaving the small hole in the top, insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### GREEN GAGE.

STANDARDS-21/2-pound cans; 2-inch openings.

Pick the fruit ripe. Wash the fruit, fill the caus conveniently full, then fill with syrup containing not less than twenty-two per cent saccharine matter to within one-fourth inch of the top; seal the can, leaving the hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool the cans in cold water.

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#### GREEN GAGE.

Seconds— $2\frac{1}{2}$ -pound cans;  $1\frac{3}{4}$ -inch openings.

Pick the fruit ripe. Wash the fruit, fill the cans conveniently full, fill with syrup containing not less than sixteen per cent saccharine matter to within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the whole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool cans in cold water.

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#### EGG.

EXTRAS-3-pound cans; 2½-inch openings.

We advise treating this plum the same as Green Gage. Exhaust five minutes and cook fifteen minutes or according to ripeness of fruit; syrup to contain forty-eight per cent saccharine matter.

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### EGG.

EXTRA STANDARD-21/2 pound cans; 21/2 inch openings.

Exhaust five minutes, and cook fifteen minutes, or according to ripeness of fruit; syrup to contain forty per cent saccharine matter. Cool cans in cold water.

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## EGG.

STANDARDS-21/2-pound cans; 2-nch openings.

Exhaust five minutes, cook fifteen minutes, or according to ripeness of fruit; syrup to contain thirty-two per cent saccharine matter. Cool cans in cold water.

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### EGG.

SECONDS-2-pound cans; 13/4-inch openings.

Exhaust five minutes, cook fifteen minutes, or according to ripeness of fruit; syrup to contain twenty-four per cent saccharine matter. Cool cans in cold water.

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### DAMSON.

This plum is canned the same as the Green Gage, in four dis-

tinct grades, namely: Extras, Extra Standards, Standards and Seconds. The process, time of exhaust and cooking, and grades of syrup to be the same.

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## GOLDEN DROP.

EXTRA—3-pound cans; 2½ inch openings.

In treating this subject our aim is to direct the canner to put up the highest class of fruit and thereby get for himself a product that will sell on its merits.

Place the fruit in the can conveniently full; fill to within one-fourth inch of the top with syrup containing forty-eight per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool in cold water.

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## GOLDEN DROP.

EXTRA STANDARDS-21/2-pound cans; 21/2-inch openings.

Wash the fruit thoroughly, put in cans; fill to within onefourth inch of the top with syrup containing forty per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool cans in cold water.

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# GOLDEN DROP.

STANDARDS—2½-pound cans; 2½-inch openings.

Wash the fruit thoroughly, fill the can with fruit, then fill to

within one-fourth inch of the top with syrup containing thirtytwo per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twelve minutes or according to ripeness of fruit. Cool the cans in cold water.



This product is usually canned in two grades.

Extra Standards—Or choice quality; 2½-pound cans; 2½-inch openings.

Prepare the fruit, fill the cans conveniently full; fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the cans, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water twenty minutes or according to ripeness of fruit. Cool the cans in cold water.

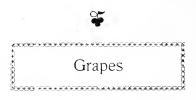
The next grade will be known as Standards, and canned the same as above; twenty-eight per cent saccharine matter syrup. Exhaust five minutes, cook twenty minutes. Cool in cold water.



# Quinces

Two and-half-pound cans; two and one-half-inch openings.

This fruit can be canned by the same process as nectarines, in two grades, namely, Extra Standards and Standards; the syrups, time of exhaust and cooking, the same.



# MUSCAT.

These grapes are canned in two qualities, namely, Extras and Extra Standards.

Extras-2½-pound cans; 2½-inch openings.

This fruit is to be carefully selected, stemmed and washed, and is usually packed in two and one-half pound cans. The grapes are to be filled in the cans conveniently full; fill the can to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water seven minutes or according to ripeness of fruit. Cool the cans in cold water.

## MUSCATS.

EXTRA STANDARDS—21/2-pound cans; 21/2-inch openings.

This fruit is to be carefully selected, stemmed and washed; the can to contain not less than one and one-half pounds of grapes. Fill the can to within one-fourth inch of the top with syrup containing not less than twenty per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water seven minutes or according to ripeness of fruit. Cool the cans in cold water.



This is a very fine class of fruit and is made of any of the three grades of fruit, namely, Extra, Extra Standards or Standards, and can comprise two or four cans of each kind of fruit in their respective grades, until the case of two dozen cans is filled.



We advise canning all the berries that it is possible to obtain, as they are immensely profitable, and we give the following process: (See Explanation on Berries.)

## STRAWBERRIES.

Two ½-pound cans; 1¾-inch opening.

After gathering the berries, wash them so they will be free from grit and dust, fill the can conveniently full, then fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water seven minutes. Cool the cans in cold water.

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## BLACKBERRIES.

Two and 1/2-pound cans; 13/4-inch opening.

After gathering the berries wash them so they will be free from grit and dust, fill the cans conveniently full; then fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water seven minutes. Cool the cans in cold water.

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## GOOSEBERRIES.

Two and 1/2-pound cans; 13/4-inch opening.

After gathering the berries stem them, then wash so they will be free from grit or dust; fill the cans conveniently full, then fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water seven minutes. Cool the cans in cold water.

# RASPBERRIES.

Two and ½-pound cans; 1¾-inch opening.

After gathering the berries wash them so they will be free from grit and dust; fill the cans conveniently full, then fill to within one-fourth inch of the top with syrup, containing not less than thirty-two per cent saccharine matter; seal the cans, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water seven minutes. Cool the cans in cold water.

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# CURRANTS.

Two and 1/2-pound cans; 11/4-inch opening.

After gathering the currants stem them, and wash so they will be free from grit and dust; fill the cans conveniently full, then fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter; seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, seal the hole, and cook in boiling water seven minutes. Cool the cans in cold water.





# ROYAL ANN.

EXTRAS-Three-pound cans; one and three-quarter inch opening.

Gather the cherries when ripe, stem and wash them so they will be free from grit and dust; fill the cans conveniently full, then fill to within one-fourth inch of the top with syrup containing not less than forty-two per cent saccharine matter, seal the can, leaving the small hole in the top; insert in boiling water five minutes, take out, seal the hole, and cook in boiling water twelve minutes, or if a little green, cook fifteen minutes. Cool cans in cold water.

See General Explanation.

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# WHITE CHERRIES—BLACK CHERRIES.

EXTRAS—Three-pound cans; one and three-quarter inch opening.

We recommend these cherries being canned the same as above, only if they contain more tartness, which is very plainly visible in most cases, add from two to four per cent more of saccharine matter.

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# ROYAL ANN.

EXTRA STANDARDS-21/2-pound cans; 13/4-inch opening.

This fruit is to be carefully selected and is equal to the Extras, three-pound, the only difference being that the fruit is smaller in size.

After selecting or grading the fruit, fill the cans conveniently full of cherries; fill to within one-fourth inch of the top with syrup containing not less than thirty-two per cent saccharine matter, then seal the can, leaving the small hole in the top; insert in boiling water five minutes; take out, and seal the hole, and cook in boiling water fifteen minutes or according to ripeness of fruit. Take out and cool the cans in cold water.

The next grade of cherries is known as Standards and is canned the same as above, only the fruit is smaller, and the syrup contains about ten per cent less of saccharine matter in the the lower grades, which are namely, Extras, Extra Standards, Standards and Seconds.

See General Explanation.



# For Making Syrups

We will explain that the process of making syrup is one in which exceptional care must be taken and extreme cleanliness observed. If possible, make the syrup from filtered water and granulated sugar. Place the water in the vessel that the syrup is to be made in and get to a boiling point before adding the sugar; boil at least five minutes, then strain through a series of cotton wool and let cool before using.

In order to test the consistency of the syrup use a saccharometer after the syrup is cool.



# Vegetables

In canning vegetables, if there is a considerable amount to be canned we advise using a retort. (A retort is a compressed steam box.) In cooking in boiling water it is very difficult to kill the bacteria or lactive ferment, but this can be accomplished by adding fifteen per cent of salt to the water, or giving a calsime bath (so-called); by this means a heat of two hundred and thirty (230) degrees is obtained; the usual degree of heat in cooking in a retort would be two hundred and forty degrees (240) which consequently facilitates the process. We give the following process for canning in retort or calsime bath:

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PEAS.

Two-pound cans.

After shelling the peas, which can be done by machine or by hand, place the peas in boiling water for at least twenty minutes, drain water off and fill in cans to within one-half inch of the top; fill with salt brine eight degrees (8°) salt. (Test with salt hydrometer.) Seal the can, leaving the small hole in the top, insert in boiling water seven minutes; take out, seal the hole, and cook in boiling water two hours, or in salt brine at two hundred and thirty degrees (230°) one hour; or in retort at 240° thirty-five minutes. Cool the cans in cold water.

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STRING BEANS.

Two-pound cans.

After stringing the beans, wash clean to clear off specks or

rust. Place in about four gallons of boiling water two ounces of common soda or saleratus, put in the beans and boil until they are thoroughly blenched (green), take out and drain the water off. Fill the cans as full as possible, pressing them down quite firmly; add salt filtered brine, seven degrees (7°) salt, (test with hydrometer) to within one-eighth inch of the top. Seal the can, leaving the small hole in the top, insert in boiling fresh water eight minutes, take out, seal the hole, and cook in boiling (fresh) water one and three-fourths hours at 212°, in salt water at 230° one hour, or in retort at 240° forty-five minutes. Cool the cans in cold water.

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#### CORN.

# Two-pound cans.

The corn to be young and tender and cut from the cob by hand or machine. Put in boiling water twenty minutes, drain off about half the water, fill the cans full. Add 7° salt water to within one-fourth inch of the top, insert in boiling fresh water seven minutes, take out, seal the hole, and cook in boiling water two hours, in salt water one hour and one half, or in retort thirty minutes. Cool the cans in cold water.

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#### TOMATOES.

# Three-pound cans.

Of this product, we advise canning all that it is possible to obtain, especially whole tomatoes, as they are a very fine quality and command a much higher price than the so-called "slop pack." Great care must be exercised in canning tomatoes whole, as a few hours over-standing will depreciate the value of them greatly. We give the following process:

Scald the tomatoes in ten degrees salt water (this prevents the

tomatoes from becoming mushy), immerse in the boiling salt water until the skin slips nicely, peel, and cut out green spots; fill the cans full of tomatoes, whole if possible, then fill with clear filtered brine six degrees salt and two per cent saccharine syrup mixed together. Seal the can, leaving the small hole in the top, insert in boiling water ten minutes, take out, seal the hole and cook in boiling fresh water forty-five minutes, in salt water thirty minutes, or in retort twenty minutes. Cool the cans in cold water.

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# TOMATOES-SLOP PACK.

There is a class of canned tomatoes called "slop pack." We do not advise canning this product as the market is over stocked with it, but it is packed as follows: The tomatoes are scalded in fresh boiling water, taken to the peeling tables and peeled, and three or four tomatoes are put in each can. The peeling and other waste are put in a cyclone or pulp machine and made into a thin pulp, usually quantities of squash or pumpkin are mixed in and used as a substitute for filling. This "mess" is put in a syrup machine and the cans are filled with this undesirable mixture. (We however let the canner use his own discretion in doing this.) Seal the cans, leaving the small hole in the top, insert in boiling water seven minutes, take out, seal the hole; and cook in boiling water forty-five minutes, in salt water thirty minutes, or in retort twenty minutes. Cool in cold water.

The Extra whole tomatoes are packed in three-pound cans with three-inch openings.

Extra Standards, in two and one-half pound cans and two and one-half inch openings.

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### ASPARAGUS.

The product is canned in very large quantities. We advise canning all this product it is possible to obtain, as it is very profitable. Cut the asparagus when young, tender and white. carefully selected, and blench in hot water twenty minutes. Wash the cans thoroughly, place the asparagus in the can endwise, filling the can as firmly as possible, and fill with filtered brine, seven degrees salt, to within one-fourth inch of the top; seal the can, leaving the small hole in the top; insert in boiling water twelve minutes. Take out, seal the hole, and cook in boiling fresh water one hour and forty-five minutes, in salt water one hour and thirty minutes, or in a retort one hour. Cool the cans in cold water. In cutting the asparagus a small box one-fourth inch shorter than the can is used, a trimming knife arranged to cut the exact length of the box. A square can of two pounds is usually used, but one pound, and half-pound cans are used for the clippings and cheaper grades.

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# SWEET POTATOES

This product is to be boiled in hot water one-half hour, then put in a pulp machine and ground finely. Put one teaspoonful of salt in the bottom of each can, fill very firmly with potato to within one-fourth inch of the top, seal the can, leaving the small hole in the top, insert in boiling water fifteen minutes, then take out, seal the hole, and cook in boiling water two hours, in salt water one and one-half hours, or in retort one hour. Cool the cans in cold water.

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# PUMPKINS AND SQUASH.

Two-pound cans; 13/4-inch opening.

Break the pumpkin of squash and remove the seeds. Steam

until quite soft and put in a pulp machine to make fine pulp; fill the can to within one-fourth inch of the top, seal the cans, leaving the small hole in the top, insert in boiling water twelve minutes, take out, seal the hole, and cook in boiling water two hours, or salt water one hour and one half, or retort one hour. Cool the cans in cold water.

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# BAKED BEANS, WITH TOMATO AND CHILI SAUCE.

Two-pound cans; two-inch openings.

Take the dry beans and soak for ten or twelve hours, then boil in boiling water one hour or until they are soft. Take to every gallon of beans one pint of tomato mashed to a fine pomace, one and one-half ounces of Chlli peppers ground very fine, one-half pound of granulated sugar, and mix well together. Fill the can half full of beans, put one piece of salt pork about one inch square in the center of the can, and fill the can with beans to within one-fourth inch of the top. Seal the can, leaving the small hole in the top, insert in boiling water twenty-five minutes, take out, seal the hole, and cook in boiling water one and one-half hours, in calsime or salt water one hour, or in retort forty-five minutes. Cool the cans in cold water.



# Corned Beef, Etc.

## CURING CORNED BEEF.

Make a brine seventy degrees salt, and to every ten gallons add one and one-half pounds of best granulated sugar. Take about three gallons of this, add one-half ounce of salicylic acid and one-half ounce of saleratus, let boil five minutes so it will not separate, then add it to the remaining seven gallons and mix well together. Put the meat in the brine and let it remain at least six (6) days before canning.

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# CANNING CORNED BEEF.

One and two-pound cans.

Take the meat out of the brine and cook one hour or according to the class of meat. Put in each one-pound can about three ounces of cold water, then cut the meat in conveniently small pieces and pack in the cans until the water rises to the top. Seal the can, leaving the small hole in the top, insert in boiling water twenty-five minutes, take out, seal the hole and cook in boiling water two and one-half hours. Cool the cans top side up, in cold water fifteen minutes, then turn bottom side up in the cold water and let remain until cold and set.

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# CANNING ROAST BEEF.

One and two-pound cans.

Put the fresh meat in the brine over night to extract the blood,

then cook the meat one-half hour; cut the meat in conveniently small pieces and put three ounces of cold water in the bottom of each can. Pack the meat in the cans until the water rises to the top, then seal the can, leaving the small hole in the top, insert in boiling water twenty minutes, take out, seal the hole and cook in boiling water two hours. Cool the cans in cold water, top side up fifteen minutes, then turn bottom side up in the water, and let remain until cold and set.

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## FOR CANNING SAUSAGE.

One and two-pound cans.

For canning pork sausage put about a teaspoonful of lard in the bottom of each can, then pack the can with sausage to within one-fourth inch of the top. Insert in boiling water ten minutes or until the bubbling stops at the hole, then take out, seal the hole and cook in boiling water thirty minutes. Cool the can in cold water top side up fifteen minutes, then turn bottom side up in water, and let remain until cold and set.

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# FOR CANNING ROAST MUTTON.

This product is usually canned where there is a large amount of slaughtering done and canned in the following manner:

Take the breast of mutton and place in brine 30° salt for ten or twelve hours to extract the blood, then take out and cook in boiling water twenty minutes. Put two ounces of cold water in the bottom of each can; cut the meat in conveniently small pieces and pack the can until the water rises to the top. Seal the can, leaving the small hole in the top, insert in boiling water ten minutes, take out, seal the hole, and cook in boiling water two and one-half hours. Cool cans in cold water top side up fifteen minutes, then turn bottom side up and let remain until cold and set.

# CANNING DEVILED TONGUE.

Salt the tongue in straight 50° salt brine; to every ten gallons use one ounce of salicylic acid and mix well together. Let the tongue remain in the brine for at least five days, then take out and cook one hour in boiling water. Cool by placing the tongue in cold water. Cut in conveniently small pieces and run through a sausage machine six or seven times or until it is the consistency of paste, then add to every twenty pounds of tongue five pounds of veal treated under the same process. Mix well together and while mixing add three ounces of pure cayenne pepper, two ounces mace, two and one-half pounds of potato flour.

Put one ounce of cold water in the bottom of each can, then fill the can with this product until the water rises to the top. Seal the can, leaving the small hole in the top, insert in boiling water seven minutes, take out, seal the hole, and cook in fresh boiling water one and one-half hours, or salt water one hour, or retort one-half hour. Cool the cans top side up in cold water fifteen minutes, then turn bottom side up in water and let remain until cold or set, or place in chill room.

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### DEVILED HAM.

Take five pounds of cured ham, five pounds of well cooked meat and run them through a sausage grinder at least five times. Mix one pound of potato flour, one ounce of Chili peppers ground to a fine pomace, one ounce of cavenne pepper, two ounces of sugar, one ounce of mace. Add to the meat, fill the cans (one-fourth pound cans) to within one-eighth inch of the top, and seal the cans, leaving the small hole in the top. Insert in boiling water seven minutes, take out, seal the hole, and cook in boiling water forty-five minutes. Cool the cans top side up in cold water fifteen minutes, then turn bottom side up and let remain in water until cold and set.

# CANNED TONGUE.

There are various methods of canning tongue. We recommend canning under the following process;

Place the fresh tongue in 30° salt brine for at least twelve or thirteen hours to extract the blood. Use the large opening, two-pound cans, putting two ounces of cold water in the bottom of each can. Fill the can full with tongue, then seal the can, leaving the small hole in the top and insert in boiling water twelve minutes. Take out, seal the hole, and cook in fresh boiling water two hours, in salt water one and one-half hours, or in retort one hour. Cool the cans in cold water top side up fifteen minutes, then turn bottom side up in water and let remain until cold and set.

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# WIENERWURST AND SAUERKRAUT.

Put two small wienerwursts in the bottom of each can, then take the raw sauerkraut and stuff the can about half full, put two more wienerwursts in the middle, then fill the can to within one-fourth inch of the top with sauerkraut. Seal the can, leaving the small hole in the top, insert in boiling water twenty minutes, then take out, seal the hole and cook in fresh boiling water forty-five minutes, in salt water thirty minutes, or in retort twenty minutes. Cool the cans in cold water.



# For Making Jelly

In making jelly great care has to be exercised. The average jelly maker makes the jelly out of over ripe fruit, when decomposition has set in, and the proportions generally used are half sugar and half fruit juice. We do not advocate this system as the amount of sugar put in is far too much to meet with success. We give the following process:

The fruit is to be thoroughly washed and the decayed spots Run through a grinding machine, then place in a jacket kettle, with a sufficient amount of water in the fruit to keep from scorching, and boil slowly for one-half hour. Place in jelly sack-we recommend ordinary sugar sacks washed clean; just before placing pulp in the sack rinse the sack in hot water. Let the pulp drain, then take fine wire sieve and place over it a thin layer of cotton wool and a piece of muslin; tack the muslin to the cotton wool to keep it from floating, then pour the juice on the cotton wool (or in the pan) and let filter through. This can also be accomplished by putting a series of three or four finely perforated pans, one above the other about six inches apart, with cotton wool in each one but the top one. Put the pulp and juice in the top pan and let filter through, then place the juice in a jacket kettle and heat very slowly until it is evenly heated. every gallon of juice add one-fourth ounce of saleratus; this will raise a scum which is immediately skimmed off. Then to every gallon of juice add four and one-half pounds of sugar, well heated before placing therein. Boil together gradually twenty minutes, stirring to prevent burning. Take out in an ordinary sprinkling pot, with the sprinkler removed.

Arrange glasses on a table, fill them full and let remain until cold and set, after which melt paraffine wax boiling hot and put one teaspoonful of the hot wax on each glass of jelly; cover with tin tops or parchment paper. Two dozen twelve-ounce glasses are usually put in nested crates. We give the following table, as to the amount of sugar for making the different kinds of jelly:

Specific gravity of melted sugar
Apples
Apricots
Blackberries
Cherries 35 per cent
Currants
Gooseberries35 per cent
Gooseberries
Nectarines 27 per cent
Peaches
Pears25 per cent
Plums
Quinces 25 per cent
Raspberries
Strawberries

In making jelly we advise using a hydrometer in order to test the specific gravity and per centage of sugar.



This product can be made in many different forms. We have been successful and recommend its being made by the following process:

Make a heavy syrup of fifty per cent saccharine matter. Take ripe fruit and boil very slowly in hot water four or five minutes, then place on perforated screen or table and let drain for half an hour, place in the syrup and let simmer for twenty minutes when it will be congealed, taking care to skim the froth from the top. Transfer into jam jars taking care not to break the fruit, but keep it as whole as possible. This can be done especially in

raspberries, blackberries, currants and quinces. Exceptional care must be exercised in transferring the berries from the kettle to the jars, not to take out of the kettle too quickly, but let them remain in it if possible one-half or three-quarters of an hour before removing.



The usual way to make fruit butter is as follows: Place the apples, peaches or pears in a kettle and let boil until the fruit becomes soft, then put in jelly sacks and drain a part of the juice off, which can be made into a jelly. Take the pomace and run through a cyclone or pulp machine for commercial use, or for domestic use through a wire sieve, then place in a kettle equal parts of fruit and twenty-five per cent syrup, made from granulated sugar or confectioners' glucose. Let boil gradually for one hour, stirring at intervals, then take out and fill in jars—the "English" jam jar is preferable. (This will apply to most any kind of fruit.)



Preserves are a product that in a family is put up in the form of canned fruit in the Mason glass jars. We do not advise putting this product up for the commercial market. We give the following process for making preserves in screw top jars: Peel

the ripe fruit and make a syrup of about forty per cent saccharine matter. Place the fruit in the syrup and let it come to a boil, continuing until it is quite soft. Place the jars in a warm place or set them on heavy cloth or sawdust, and pour the fruit in the jars with a sufficient amount of syrup to cover them. As soon as possible screw the tops on them, then insert them in luke warm water; tighten the top; take great care the jars are covered—if there is any defect bubbling will result. Take them out and set in a cool place, as this will retain the color.



# Orange Marmalade

Peel the oranges, slice and put them to drain, ridding them of a part of the juice; make syrup forty per cent saccharine matter, then place the sliced oranges in the syrup and let them simmer for one-half hour. Fill in jars which have been previously heated, place a piece of paraffine paper over the top and screw the top on firmly. These are usually in one-dozen nested crates.



# Concentrating Fruit

• This is practically a new industry in this State but the process of condensing milk has been advocated in this State for a long time. There has been an attempt by a few firms in this State to condense milk, but so far they have not been able to do so to the

satisfaction of the trade. The knowledge has certainly been in the State for a long period. We ourselves have known it to be for the past fifteen (15) years. The requisites for starting a concentrating plant are, namely:

First—An abundant supply of fruits, vegetables or milk.

Second—An abundant supply of clear cold water.

Third—Fairly good railroad facilities.

The initiatory step is to procure our services, to get the condensing plant or outfit, which consists of:

One 12 H. P. boiler.

One vacuum pump and engine.

One vacuum pan and condenser and vapor pipes attached.

One pulp machine.

One grinding machine.

One steam jacket kettle.

We will briefly explain the only difference in desiccating and concentrating, namely—the concentrating is done thus: The fruits are carefully washed, and ground to a fine pomace, skins and seeds being removed during the cooking process; the product is cooked and the vacuum pump is gradually kept going, thus pumping off the water. In desiccating, the fruits or vegetables are cooked before being placed in the vacuum pan.

We advise anyone before taking up this very important question to write us for prices and particulars.



# For Pickling

There are four grades of pickles, namely: Gherkins (the smallest pickle), small pickles, medium and large; the most valuable of the four are the Gherkins packed neatly in pints and half-pint pickle bottles.

There seems to be a large field for this industry as it is in its infancy in regard to cucumbers, cauliflowers, onions, string beans, myrtinias, etc.

We give the following process:

Make a brine sixty degrees salt, this brine being thoroughly strained, put to every ten gallons, one-half gallon sixty grain vinegar, two ounces salicylic acid, three ounces saleratus; mix well together. Put into the brine the articles to be pickled and let them remain at least eighteen days, or for as long a period as you like to keep them. Take out and put them in a hot alum solution of three-fourths of a pound of alum to ten gallons of hot water; let them remain at least two days or until they become brittle, then take out and put to drain. Wash them clean, put them in thirty grain vinegar for at least two days, then increase the strength of the vinegar to sixty grains and let remain at least ten days. For five gallon keg pickles, fill the keg, putting in a handful of whole peppers, two or three Chili peppers, handful of bay leaves, one ounce of whole white mustard seed and cover with sixty grain vinegar. Seal the keg and it will be ready for market.

Take the pickles, the same quality, from the first mentioned vinegar, and take one gallon of thirty grain vinegar, two and one-half pounds of glucose, one ounce of salicylic acid, two ounces cinnamon bark, one ounce cloves, one ounce of soda, and put all in a bag and boil in the vinegar and glucose very slowly for eight

minutes. Then take the pickles out and pack in jars; take and strain the liquor they have been boiled in, and just cover the pickles with this liquor and seal while hot.

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## FOR MAKING CHOW-CHOW.

Take the same material as for sweet pickles and cut fine or conveniently small pieces and fill the jars and make dressing: Take one quart of vinegar, sixty grains, one-half pound of Colbourn's mustard, one-fourth pound cornstarch, made into a fine paste with cold water or vinegar, one-fourth ounce burnt amber, and mix well together; boil together for three or four minutes to stop separation, stirring constantly while cooking. Pour this over the cut pickles, while hot, take a pointed stick and work the dressing through the pickles, then seal while hot.

The method we recommend in sealing is this: Place the corks in a small sack, boil them thoroughly in clear water; adding a small amount of salicylic acid to the water will prevent the corks from becoming sour, as sour corks result in decomposed pickles. Take the corks from the sack while hot, insert a small piece of baling wire in the opening of the bottle, then gradually press the heated corks to their proper places; pull the wire out, thus excluding the compressed air in the bottle. Melt a small amount of rosin, and to every pound of rosin put about one teaspoonful of lard, one teaspoonful of red ochra or lamp black, boil and mix well together, then take from the fire. Trim the top of the corks smooth and level with the top of the bottle, then dip the top of the bottle in the mixture to about one half inch; lift out and turn rapidly in the hand, then dip in clear cold water. pack in sawdust, in cases, usually putting one dozen pints in a case.

# Making Catsup

Take ten pounds of tomatoes and mash to a fine pomace, clear of skins and seeds; boil ten pounds of pumpkin or squash to a fine pomace; these can be run through a pulp or cyclone machine. Mix all well together and add the following extracts, spices or oils:

One-half pound salt.

One-half pound sugar.

One ounce red pepper (cayenne)

One and one-half ounces cinnamon.

One and one-half ounces alspice.

One-half pound finely ground red peppers.

One ounce horseradish.

One and one-half ounces Worcestershire sauce.

One and one-half ounces cloves (ground.)

One-half ounce cochineal or carmine mixed well together in a small quantity of best sixty per cent vinegar to dissolve.

One-half ounce salicylic acid.

Boil together at least twenty-five minutes. Then bottle and cork while hot. Can use more tomato and less pumpkin or squash if desired.



# Canning Salmon

This product we have given a great deal of thought and have conducted large and expensive experiments that we might arrive at the best practical results. We advise canning this product with steam and retort. It requires for canning two thousand cans per day:

One 12 H. P. boiler.

Four open tanks 36 by 36 by 24 inches.

Twelve coolers.

One Triumph floating and crimping machine combined.

One set gang knives.

One steam retort or chest  $4\frac{1}{2}$  feet long, 2 feet 2 inches wide, 1 foot 8 inches deep, with trays and trucks to match.

One sliming tank 3 feet long, 3 feet wide, 2 feet deep.

One salting tray or table 3 feet long, 3 feet wide.

After receiving the fish clean them well and put in salt brine or sliming tank with 30° salt one-half hour; take one set gang knives, which are set one-fourth inch shorter than the cans, cut the fish crosswise, slit through the backbone. Then put one-fourth ounce of salt in the bottom of each one-pound can; fill the cans equally with belly and backs with skin part next to can, then place a small piece of tin on top, or underneath vent hole, clap tops on and run in the crimping machine; then run in soldering machine. Insert in boiling water thirty minutes, take out, seal the hole, and cook in fresh boiling water at 212° two and one-half hours; in salt water at 230° two hours, or in retort 240° one and one-half hours. Then cool the cans in cold water.

We will state that in canning this product there is no special size cans, though the inferior qualities of fish are canned in one pound tall cans and the choicer cuts in one-pound, one-half-pound, and one-fourth-pound flat cans.

# Mutton Cutlets

# With Tomato Sauce—One-pound flat cans.

Take six cans of tomatoes and stew them twenty minutes with two ounces of parsley, one ounce cloves, one ounce pepper, one ounce salt.

Then put one-fourth pound of butter or leaf lard in a clean sauce pan or earthern vessel and set over the fire; when it has reached the bubbling point add two ounces of flour, this mix thoroughly until smooth and when thoroughly cooked add the tomatoes, which first must have been passed through a sieve; the sauce will boil quickly over a hot fire. Take six well trimmed mutton cutlets; arrange them in one-pound flat cans then pour the tomato sauce over them, just covering the cutlets; seal the can, leaving the small hole in the top. Insert in boiling water twelve minutes, take out, seal the hole; and cook in boiling water one hour. Cool the cans in cold water.



# English Beef Pie

# One-pound flat cans.

Take three-fourths pound of white Indian meal and melt a sufficient amount of lard or olive oil to make the meal into a fine paste, then with an ordinary table knife place the mixture smoothly, lining the inside of a one-pound can. Take one-half-

pound cold roast beef, one onion, one ounce of powdered mace, two well beaten eggs, one-fourth ounce of pepper, one-fourth ounce salt, two ounces butter, one-half cup of cream or milk, and one cup of bread crumbs (chopped fine.)

Chop the meat, spices, egg and crumbs all finely together, then add the cream or milk and mix thoroughly. Fill the cans to one-fourth inch, and cover the whole with the Indian meal mixture. Seal the cans, leaving the hole in the top; insert in boiling water twelve minutes; take out, seal the hole, and cook in fresh boiling water two hours at 212°; in salt water at 230° one and one-half hours, or in retort at 240° one hour. Cool the cans in cold water.



# One-pound flat can.

Chip the ham (like dried beef) and fry with a little butter. Make two slices of dry buttered toast (bread); put one piece of toast in the bottom of the can, then put the fried meat on top of the toast; put in two well beaten and hard boiled eggs on top of the meat, and then another piece of buttered toast. Seal the can, leaving the small hole in the top; insert in boiling water twelve minutes; take out, seal the hole and cook in boiling water twenty-five minutes. Cool the cans in cold water.



# Liver and Bacon

# One-half-pound cans.

Cut the liver into small thin slices about two inches square and one-fourth inch thick, salt and pepper each piece separately; place on a wire skewer, alternately, with thin slices of bacon of similar size and boil or fry five minutes in boiling fat. Make thin slices of dry buttered toast, place one piece of toast in the bottom of each can, then a layer of liver and bacon and then a piece of toast and so on until the can is full; seal the can, leaving the small hole in the top; insert in boiling water twelve minutes, take out, seal the hole, and cook in boiling water thirty-five minutes. Cool the cans in cold water.



# For Canning Clams

This article is canned in quite large quantities on the Pacific coast. We recommend canning under the following process: Take the fresh clams and put them in fresh water for three or four hours so they will spit forth all the sand. Put in a boiling tank, and if there is a steam coil or perforated pipes in the bottom, take some loose boards full of holes and fit in bottom of tank or on top pipes, then place the clams on the boards without any water and gradually turn on the steam until the clams squirt

the juice or nectar out; they will almost cover themselves with the juice they ooze forth. When they are opened well, take them from the tank, and with a sharp knife, open, and cut the flesh from the shell and slip the skin from their necks. Fill the cans about three-fourths full of clams, then draw off the nectar from the tank, and strain it through a muslin cloth; fill the cans to within one-fourth inch of the top. Seal the cans, leaving the small hole in the top; insert in boiling water twenty minutes; take out, seal the hole, and cook in fresh boiling water 212° two hours, salt water at 230° one and one-half hours, or retort at 240° one hour. Cool the cans in cold water.

The variety of clams we recommend canning are little necked or Eastern soft shell white clams.

The Quahaugs are canned, but have to be chopped fine and made into clam chowder and cooked at least twenty minutes longer.

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## CLAM CHOWDER.

# One-pound cans.

Take the fresh clams and place them in fresh water for three or four hours when they will rid themselves of the sand; then steam them the same as directed in canning clams. Take the meat from the shells and skin the necks, then run through a sausage mill. To every ten pounds of clams add three pounds of raw potatoes, about one pound of chipped raw onion, one small turnip, two ounces of thinly cut beef; mix all well together. Fill in one-pound cans three-fourths full, then take the juice from the bottom of the tank, strain thoroughly, fill the cans with the juice or nectar to within one-fourth inch of the top, and seal the cans, leaving the small hole in the top. Insert in boiling water twenty minutes; take out, seal the hole, and cook in boiling water one and one-half hours. Cool the cans in cold water.

# Canning Crawfish

This product is canned in very limited quantities on this coast; there seems to be a demand for them and the industry is growing quite rapidly. We give the following process for canning: Take the fish from the water and while they are still alive place them in boiling hot water twenty minutes, then break or cut the shell and take the meat out as near whole as possible. Line the cans with paraffine paper and place the fish in as whole as possible; divide the different parts of meat equally in the cans, making them conveniently full. Make a brine four degrees salt, and fill them to within one-fourth inch of the top, then seal the cans, leaving the small hole in the top. Insert in boiling water twenty minutes; take out, seal the hole, and cook in boiling water one and one-half hours. Cool the cans in cold water.



# Treatise on Olives

# PICKLING.

Urgent requests have been made to us to write a work on the different methods of pickling olives and making olive oil. The following methods have been successful in this and other States.

The most simple of these processes or methods is as follows: For dead ripe olives, fifteen pounds of caustic soda and six pounds of lime put in one hundred gallons of water. Place the caustic soda in a bucket or tub of wood (oak preferred) and the caustic soda dissolved in cold water will then heat to a boiling point; place in a similar vessel six pounds of lime and let remain three or four hours or until the water has become clear, then dip off the clear water and place in the caustic soda solution. will be understood will be only twelve gallons of water. ninety gallons of water in regular pickling troughs, which are made of wood, twelve feet long, two feet wide and one foot deep, and place the olives in the tank, just covering them with the solution; let them remain approximately six days or until the lve solution reaches the pit; this may be ascertained by cutting samples of the fruit which will make a mark on the white flesh of the olive. When they are made free stone by the use of the lye drain the lye off through a faucet near the bottom and letting fresh water run in at the top in the meantime; when all traces of the lye are gone close the faucet and let the water stand on them. This process of puttlng on water every morning will be repeated for at least six successive days, then by cutting the olives you will ascertain when the lye is all soaked out of the olives. Make a brine thirty degrees salt (test with a salt meter) and put the olives in, to remain at least twelve days, then increase the degree of salt to forty-five degrees and let them remain at least twelve days more. They will then be ready for use.

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# WATER PROCESS.

While this process is the oldest in use it requires constant care, but the olives are decidedly better, containing a larger per cent of oil, and well cured olives of this description will keep longer. It is also easier for the average grower.

Arrange a series of barrels or wooden vats and fill each threefourths full of olives, then the olives are covered with fresh water. Drain the water off and cover with fresh water every other day for thirty-five days or until the bitter principle is removed; then make a brine thirty degrees salt—let them remain at least twelve days in this brine. Increase the strength of brine to about thirty-eight or forty degrees, and let them remain at least twelve days, before they are ready for use.

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# FOR MAKING OLIVE OIL.

There has been a great deal said of the different processes of making olive oil. We have had good results from the following process and our oil has sold for the very highest prices.

Take the fresh olives, run them through a cleaning machine to rid them of the leaves and stems, crush them finely with a corrugated roller or olive crushing machine. Place the pulp in a press with heavy grain sacks between the layers of olive pulp, putting them in layers of not more than three inches in thickness, taking extraordinary care that the sacks are washed thoroughly before putting the pulp in the press; press the oil and water out and place in clean barrels or galvanized tanks. Let the juice remain from thirty to thirty-five days, when the oil will rise to the top, and for clarifying or filtering, the oil will be drawn from the barrel with a faucet or dipper.

Then arrange a series of four six-quart pans (the pans to be perforated with one-sixteenth of an inch holes) in a frame one above the other and about six inches apart, the top one to be much deeper so as to hold more of the product; place in the bottom of each pan a layer of cotton batting and sew a layer of cheesecloth over it to keep it in place. Put the oil in the upper pan and let it filter through the cotton batting, catching it in an earthen vessel placed underneath. Make a stand holding six one-gallon tin tunnels and get some crimped filter paper and place in each tunnel; then take the oil from the earthen vessel and place in the filter paper, and place an earthen vessel underneath to catch the oil. Fill in cleanly washed bottles and cork and seal, taking care the corks are thoroughly sterilized in boiling hot water.

# Evaporating Fruit

There are a great many methods of evaporating. We have found the following to be the most successful:

For peaches there are two methods of evaporating, designated as firsts and seconds.

First-Take the ripe peaches and peel them by hand or machine. Place in a vessel containing ten gallons of water, three ounces of alum, four pounds granulated sugar (dissolved in a little water), two ounces potash, (commercial quality.) Mix together thoroughly before adding the fruit which should be put in as soon as peeled. Let them remain in the solution at least twelve or fourteen minutes, then take out and distribute on evaporating travs and let them drain one-half hour; place on the evaporator, (see explanation on evaporators), and apply heat, (say 110°) for three hours, then increase the heat to 135° or 140° and let them remain at least five hours, at which time they will be sufficiently well dried. It will not be necessary to dry them to a crisp. Then place them in a warm room in a pile so that they will pass through the necessary sweating process, this will take from eight to ten days, when they will be ready for boxing. This product is usually put in ten-pound boxes.

There are various forms of packing; some fancy facing devices that make up into very beautiful packages.

Second Process—This is similar to the above process, the only difference being that the peaches are not peeled; then the other process will be followed throughout.



# Crystalizing Eggs

Take one dozen eggs, break them and beat yolks and whites together, then pour into an evaporating pan (made of galvanized iron) twelve inches long, six inches wide and one inch deep. Place on the evaporator and apply 120° of heat for six hours, then increase the degrees of heat to about 140°; they will become hard similar to a baked or hard boiled egg; this is due to the evaporation of the water. Remove them from the pan and break in conveniently small pieces and run through a coffee grinder or similar machine; repeat the grinding several times, then place in one-pound cartoon packages.



For desiccating potatoes, carrots, beets, squash, pumpkin, etc. There is a great field for this industry, as this article is coming into general use for sea voyages, northern expeditions, excursions, camping and picnic parties. We give the following process: Boil the potatoes until about half done, peel them, then put them in a galvanized iron trough with the bottom of it perforated with one-fourth inch holes. Put the trough in a press (cider press will do) with a plunger to fit tight, place a fine wire screen underneath so as to catch the potatoes after they have been pressed through the perforated bottom of the tank; the

product to be not more than one-fourth inch thick on the sieves. Place the wire sieves on the evaporator, and apply about 110° of heat for one-half hour; increase to about 120° of heat when they will become dry and similar to bread crumbs.

This product is placed in twenty-five pound cans with screw tops. The other vegetables above mentioned are treated in the same manner. We will briefly explain that any of the above products can be sliced one-fourth inch thick and placed on trays and dried as above, and also can be granulated after going through the desiccating process.



### Glace or Crystalized Fruits

This industry is one that requires great care and the product when placed on the market is very profitable. We give the following process:

The fruit is to be carefully selected and of medium size. Peel the fruit carefully, make syrup forty degrees saccharine matter, put the fresh fruit in the syrup and let it simmer for four or five minutes, or until it is well cooked, which will be ascertained by pricking with a fork. Take them out of the syrup and put on wire screen to drain, catch the syrup as it drips through. Take wire screen and cover with cheese cloth to prevent the fruit from coming in contact with the wire, then distribute the fruit on these evenly and let it dry in the sun or evaporator from three to seven hours, according to the fruit. When a little more than half dried take the fruit off when it will bear handling without breaking and roll in fine sugar (powdered sugar preferred.) This process will absorb the surplus syrup remaining on the fruit, which, when dried will form a perfect sugar coating. After dry-

ing three or four hours longer the dried sugar will then be applied as above. It is then placed in worden boxes or cartoons which are lined with paraffine paper.



#### ANGLO-SWISS PROCESS.

Two different methods are mainly used for the preparation of sterilized milk. In the older one of these adopted, e. q., the method is as follows: The milk is repeatedly heated to 158°-176° F. (70°-80° C) four times, and evaporated in vacuum pan and vacuum pump drawing off the water, leaving twelve pounds solid to one hundred pounds of milk or one hundred pounds reduced to twenty-five per cent. Add fourteen pounds cane sugar. this method the milk is condensed and its water contents reduced to only one-fourth of the original bulk. The final product is a thick syrupy mass containing all the nutritive components in the milk. Chemical analysis of this condensed milk shows its composition to be 23 to 26 per cent water, 6 to 11 per cent fat, 8 to 10 per cent casein, 53 to 57 per cent sugar, 2 to 3 per cent ash. the other or later method for condensing milk no sugar is added and the product does not obtain the exceeding sweet taste which makes the condensed milk prepared by the former method obiectionable to many people. This method is applied, for instance, at the factory Schuttendobel, near Hartzhofen, in the Bayarian alganer Alps, and described in the following manner:

As soon as received, the milk is cleaned from the dirt contained in it by means of a separator and is then evaporated in a vacuum pan until it contains thirty-seven per cent dry substance. The condensed milk is filled in tin cans by a special measuring and filling aparatus, and the cans are then soldered and heated in the sterilizer under steam pressure.

This method seems to possess many advantages over the first mentioned one.

The condensed milk is free from milk dirt, has no disagreeable sweet taste and-contains always the same quantities of water. It has therefore always the same consistency.

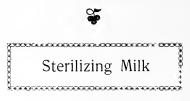
Then fill the cans to within one-fourth inch of the top, seal the can, leaving the small hole in the top, insert in boiling water, 200°, until the hole stops bubbling; take out, seal the hole, and then cool the cans in cold water.

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#### PROCESS.

Take the fresh milk from the cow and thoroughly aerate and cool to at least 68°, then test the milk with a Babcock test. After you have found the number of pounds of butter fat to every one - hundred pounds you will then place the milk in the vacuum pan and heat very slowly and agitate until you have attained your 215° Fahrenheit, then close your vacuum tank; start your vacuum pump and keep running until your vacuum gauge registers fifteen pounds. Then whatever consistency you want the milk you will figure thus: Each one hundred pounds of four per cent (butter fat) milk can be reduced to the consistency of butter in six hours under this process. For example, four per cent milk has four pounds of butter fat and eight per cent of other solids, thus giving you twelve pounds of actual solids to the hundred pounds. If you want sugared condensed milk add twelve pounds of cane sugar and heat 212° and agitate with wooden paddle or other appliance for one-half hour, then take the milk from the vacuum pan and fill in one-pound cans to within one-fourth inch

of the top. Seal the can, leaving the small hole in the top, insert in boiling water, say 200°, until the hole stops bubbling; take out, seal the hole, and cool the cans in as cold water as possible.



#### STERILIZING MILK.

There are two processes used in sterilizing milk, namely:

First—Used at the Agricultural Department at Washinton, D. C.; the other, adopted by the condensed milk factories of the United States. We herewith submit the actual process: Sterilize milk in a jacket kettle made for the purpose so that it prevents burning the casein substance in the milk; it is a well known fact that the body of casein will burn at a much lower degree than milk or sugar.

Take the fresh milk from the cow and aerate it, put in a jacket kettle and heat to 170° F.; keep at this temperature for five minutes then cool to 70° at least. Repeat the heating three times and aerate as many times as rapidly as possible so that the milk is thoroughly mixed. If you want to substitute, take to every five gallons of milk two and one-half ounces of Farina dissolved in one gallon of milk at 170° heat; while hot add to the original four gallons and mix thoroughly and aerate.



## Law of California

In touching on the law of the State of California in regard to the canning of fruits and vegetables, we quote from the State Statutes of 1901, which we think will cover the subject:

#### EXTRACT.

SECTION 102, Every person who knowingly sells or keeps or 383. offers for sale or otherwise disposes of any article of food or drink, drugs, or medicine, knowing that the same is adulterated or has become tainted, decayed, or otherwise unwholesome or unfit to be eaten or drunk, with intent to permit the same to be eaten or drunk is guilty of a misdemeanor and must be fined not less than twenty-five dollars nor more than one hundred dollars or imprisoned in the county jail not exceeding one hundred days, or both; and may, in the discretion of the Court, be adjudged to pay, in addition, all the necessary expenses, not exceeding fifty dollars, incurred in inspecting and analizing such articles.



## General Review and Explanatory Notes

In giving this general review it is our aim and purpose to make this work as plain as possible and to use such language as can be understood and comprehended by a school boy twelve years old.

We have given this subject long and deliberate thought and we think we have attained that, and giving these formulas we give nothing but receipts that in our school of instruction we can demonstrate to the most ardent skeptic who will take up the subject and discuss it from the practical standpoint of view.

None of the receipts in this book have been bought or taken from any other book, but we give such receipts as our fifteen years of successfully operating canneries have taught us. We would be glad to furnish the necessary data to any one who does not understand any point in this book.

Nearly every locality has some obstacle to contend with in the way of cooking. We have this to say: Our experience has taught us that in exhausting in any part of the country it is universally the same, but owing to altitude and atmospheric conditions in the middle west and southwestern States it would require cooking about one-fourth longer time, and in the north and middle Atlantic States about one-half as long again.

In regard to getting supplies and buying machinery we always keep in touch with the best methods adopted in the various canneries and we would prefer to personally correspond with our readers and put them in touch with such firms as we know to be reputable.

To explain "according to ripeness of fruit": Fruit to be canned in its various stages of ripeness, the exhaust (or insert in

boiling water) will always be the same as in the original formula. For instance, in giving the time in cooking apricots, exhaust five and cook fifteen minutes. This, of course, means when the apricots are in the first stage of ripeness so they are firm and will stand peeling; if a little green the universal system is to cook about four minutes longer, making nineteen minutes, and if they are fully ripe to cook from eight to ten minutes; now what is meant is the inclusive time of cooking. This applies to all kinds of fruits, vegetables, berries, cherries and grapes.



## On Fruit Evaporators

We have some twenty different designs and specifications on fruit evaporators for different localities and conditions; also for disiccating and upon application we will furnish the necessary data for a reasonable compensation.



#### Treating Muriatic Acid

Muriatic acid can usually be bought in carboys of one hundred and twenty-five pounds each for about one and one-half cents per pound; this would be of commercial quality. Take one-half gallon of muriatic acid and place in an open crock or earthen vessel, then place about one-half pound of scrap zinc in it and it will immediately start boiling and consume the zinc. When it starts boiling, ignite it, thereby burning nearly all the poison out of it. In about one hour after it has stopped boiling place about one-half gallon of clear water in it, and mix well together. Part of this will be for cleaning the coppers by dipping them in it after they have been heated; dip the solder in the fluid and apply it to the copper which will tin it. Before attempting to solder the cans, with a small clean brush apply lightly some of the acid to the parts to be soldered, which will make perfect soldering. The brace and bit soldering iron is for soldering on the caps; the tipping irons are for soldering the small holes and mending the leaks.



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# nty Leader

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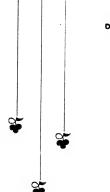
## Job Printing Department

The Leader has the largest and best equipped newspaper job printing office in Placer County. This department is in charge of a printer of many years' experience in this line. We print "any old thing" in new and attractive styles, and guarantee all work first-class. Remember, if you are in need of anything in the way of commercial printing, call at the Leader office and be satisfied with the quality of the work and with the price as well.

Chromatic Poster Printing a Specialty.

\*\*\*\*\*\*\*\*\*\*

## J. W. Morgan \*



#### DEALER IN

Dry Goods

Fancy Goods

Boots, Shoes and Rubbers

Gent's Furnishing Goods

Ladies' Underwear

Trunks, Valises, Bags, etc.

RAILROAD STREET.

- AUBURN, CAL.



\* \* Agent for Royal Gailors, of Chicago \* \*



Jacket Kettles, Process Kettles, Cans, Soldering Irons, Solder, Fire Pots, etc.

## Hardware, Mining Supplies

Stoves, Ranges, Paints, Oils, Crockery, Glassware,

## Agricultural Implements

Powder, Fuse and Caps



City Hall Building

Phone Black 65

AUBURN, Cal.

### School of Instruction

Practical Instruction Given in the

#### Science of CANNING

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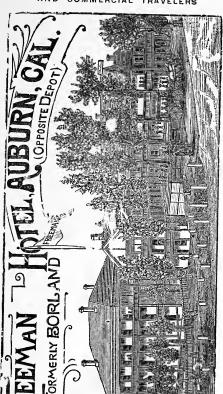
CONCENTRATING
DESICCATING
PRESERVING and
PICKLING

Fruits and Vegetables

A thorough Course of Instruction will be given each pupil. Our School is in charge of teachers of large experience.

#### HEMLOW-MERIAM CO.

AUBURN, CAL.



FREE BUS TO POSTOFFICE

Freeman & Walsh, Proprietors

AUBURN, Cal.

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IMPROVEMENTS ALL UP-TO-DATE

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ROOMS SAMPLE





